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IN THE CLAIMS:

1 1. (Currently Amended) A laser system comprising:
2 (a) a laser generating a main beam;
3 (b) a guard band laser arranged concentric to the main laser beam and generating a
4 guard band beam;
5 (c) a guard band receiver spaced from the laser for receiving the guard band beam;
6 (d) a trigger circuit coupled to the guard band receiver, the trigger circuit generating a
7 signal upon interruption of the guard band beam as detected by the guard band receiver; and
8 (e) means responsive to the trigger circuit for altering the performance of the main
9 beam upon interruption of the guard band beam.

1 2. (Original Claim) The laser system of Claim 1 wherein the guard band laser is an annular
2 laser.

1 3. (Original Claim) The laser system of Claim 1 wherein the guard band laser is a set of
2 lasers arranged concentric to the laser.

1 4. (Previously Amended) A laser system having improved signal continuity and safety,
2 comprising:
3 (a) a laser including an energy source and optical surface in a chamber coupled to an
4 energy pump and providing a laser beam;

5 (b) a guard laser concentric with the laser including an energy source and an optical
6 surface in a chamber coupled to an energy pump and providing a guard beam surrounding the
7 laser beam as a protective layer;

8 (c) a receiver spaced from the laser comprising a central lens for receiving the laser
9 beam and coupled to the laser;

10 (d) an annular, segmented set of mirrors and lenses surrounding the central lens as a
11 set of parallel receivers for receiving the guard laser beam;

12 (e) a trigger circuit connected to the set of parallel receivers for generating a signal
13 upon interruption of the guard beam; and

14 (f) means responsive to the trigger circuit for altering the laser beam upon
15 interruption of the guard beam.

1 5. (Currently Amended) The laser system of Claim 4 further comprising:
2 sensor means ~~coupled to the trigger circuit for detecting climatic conditions~~ of dust, rain and
3 other environmental elements and preventing shutdown of the main laser.

1 6. (Currently Amended) The laser system of Claim 4 further comprising:
2 a return signal laser responding to guard band interruptions as sensed by the parallel
3 receivers which activate the trigger circuit in generating a return trigger signal to the return
4 signal laser to shut down or modify the signal level of the laser beam.

C1a
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7. (Currently Amended) The laser system of Claim 4 further comprising:
a buffer circuit coupled to the laser for storing an input signal to the laser prior to shutdown.

1 8. (Original Claim) The laser system of Claim 4 wherein the guard beam is coaxially
2 aligned with the laser beam.

1 9. (Original Claim) The laser system of Claim 4 wherein the guard beam is aligned and
2 cone shaped with respect to the laser beam.

1 10. (Original Claim) The laser system of Claim 4 wherein the laser is a continuous wave
2 laser.

1 11. (Original Claim) The laser system of Claim 4 wherein the guard laser is a pulsed laser.

C1b
1 12. (Currently Amended) A laser system having improved signal continuity and safety,
2 comprising:
3 (a) a continuous wave laser including an energy source and optical surface in a
4 chamber coupled to an energy pump and providing a laser beam;
5 (b) a pulsed guard laser concentric with the laser including an energy source and an
6 optical surface in a chamber coupled to an energy pump and providing a coaxially aligned guard
7 beam surrounding the laser beam as a protective layer;

8 (c) a receiver comprising a central lens for receiving the laser beam and coupled to a

9 main receiver;

0 (d) an annular, segmented set of mirrors and lenses surrounding the central lens as a

1 set of parallel receivers for receiving the guard laser beam;

2 (e) a trigger circuit connected to the set of parallel receivers for generating a trigger

3 signal upon interruption of the guard beam;

4 (f) a return laser circuit means responsive to the trigger circuit for altering the

5 performance of laser beam upon interruption of the guard beam;

6 (g) a buffer circuit coupled to the return laser circuit means for storing an input signal

7 to the laser, prior to shutdown;

8 (h) means for discharging the buffer circuit to the laser upon termination of the trigger

9 signal; and

0 (i) means for sensing climatic conditions of dust, rain and other environmental

1 elements affecting the guard beam and preventing shutdown of the laser.

1 13. (Original Claim) In a laser system including a main laser optically coupled to a main lens
2 receiver, a guard laser optically coupled to a segmented set of lenses surrounding the main lens
3 and serving as parallel receivers for the guard laser, a method of providing improved signal
4 continuity and safety for the main laser, comprising the steps of:
5 (a) transmitting a laser beam from the main laser to the main lens;
6 (b) transmitting and coaxially aligning a guard beam with the main laser beam as a
7 protective layer surrounding the main laser beam;
8 (c) receiving the main laser beam in the main lens;

9 (d) receiving the guard beam in the segmented set of parallel receivers;

10 (e) detecting an interruption in the protective layer by the set of parallel receivers;

11 (f) generating a signal in response to the interruption of the protective layer; and

12 (g) altering the performance of the main laser beam in response to the generated

13 signal.

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1 14. (Currently Amended) The method of Claim 13 further comprising the step of:

2 (h) generating signals indicative of climatic conditions of dust, rain and other

3 environmental elements affecting the low power beam; and

4 (i) preventing the termination of the main laser beam in response to such climatic

5 conditions.

1 15. (Original Claim) The method of Claim 13 further comprising the step of:

2 (j) coupling a return laser to the generated signal for altering the performance

3 including shutdown of the main laser in response to the generated signal.

1 16. (Original Claim) The method of Claim 13 further comprising the step of:

2 (k) storing an input signal to the main laser prior to and during the period of the main

3 laser shutdown due to the generated signal.

1 17. (Original Claim) The method of Claim 16 further comprising the step of:

2 (l) restoring the stored signal and the input signal to the main laser upon termination

3 of the generated signal.

1 18. (Original Claim) The method of Claim 13 further comprising the step of:
2 (m) coupling a trigger circuit to the set of parallel receivers for producing the
3 generated signal when the protective layer is interrupted.

1 19. (Original Claim) The method of Claim 13 wherein the main laser transmits a continuous
2 wave beam.

1 20. (Original Claim) The method of Claim 13 wherein the guard beam laser transmits a low
2 power pulsed beam.

1 21. (Original Claim) The method of Claim 13 further comprising the step of:
2 (n) disposing a template about an area on a patient in which surgery is to be
3 performed;
4 (o) directing the laser beam into the area to perform surgery;
5 (p) terminating the laser beam when the template is contacted by the laser beam; and
6 (q) restoring the laser beam when the laser beam is re-directed into the area.